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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,769	11/28/2001	Susumu Endo	1359.1058	8632

21171 7590 06/16/2005

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EXAMINER
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ALAUBAIDI, HAYTHIM J

ART UNIT	PAPER NUMBER
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2161

DATE MAILED: 06/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/994,769

Applicant(s)

ENDO ET AL

Examiner

Haythim J. Alaubaidi

Art Unit

2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7 is/are allowed.
- 6) ☒ Claim(s) 3-6 and 8-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This communication is a Non-Final Office Action in response to the amendment filed on March 14, 2004. The Final Office Action of December 14, 2004, is hereby withdrawn.
2. The Examiner acknowledges the cancellation of Claims 1 and 2.
3. Claims 3-14 are presented for examination following the amendment of March 14, 2004, of which Claims 3, 7, 10 and 11 are independent claims.
4. Claims 3-6 and 8-14 are rejected under 35 U.S.C. 103(a).
5. Claim 7 is allowed over the prior art of record.

### ***Continued Examination Under 37 CFR 1.114***

6. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 16, 2004 has been entered.

### ***Priority***

7. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/994,769, filed on November 28, 2001. The Applicant was accorded the benefit of the earlier filing date of May 14, 2001.

***New Grounds of Rejection***

8. The Final Office Action mailed on December 14, 2004 has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kazuyo Ikeda (U.S. Patent No. 6,564,206 and Ikeda hereinafter).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 3-6 and 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katherine Wang (U.S. Patent No. 5,802,361 and Wang hereinafter) in view of Kazuyo Ikeda (U.S. Patent No. 6,564,206 and Ikeda hereinafter).

Regarding Claims 3 and 10-14, Wang discloses  
a data retrieving part retrieving data (Fig 2a, Element 211)  
a classifying and arranging part (the ranking of each image) for classifying and  
arranging data (image) in the data retrieving part on a display screen (Once the ranked  
images are displayed ) in accordance with feature values (according to the ranking of  
the selected image attributes) (Col 2, Lines 33-40; see also Col 8, Lines 40-47; see also  
Col 5, Lines 35-51), i.e.

Art Unit: 2161

During retrieval, the ranking of each image according to the ranking of the selected image attributes in the search inquiry is determined, and the images analyzed and displayed according to their rankings in either a spatial order, such as a grid layout, or a temporal order, one after another. Once the ranked images are displayed, the user can specify which images are satisfactory matches for the search inquiry and which are not, whereupon a correlation between the image attributes in the search inquiry and the designated images is determined, the ranking for the image attribute readjusted according to their individual correlations, and the search repeated with the new rankings. This adaptive process will allow the user to quickly identify the desired image or images. The user may again search the images for image attributes whose parameters have been reset to match the image attributes of the images indicated by the user as being satisfactory or best matches

a ground information<sup>1</sup> providing part (side information) providing each data (image) with ground information visualizing grounds (Figures 5d-5i, 7-8 and 12 and corresponding text) for the classification and the arrangement of the data; and (Col 4, Lines 63 through Col 5, Line 25; see also Col 5, Lines 35-38, i.e. ranking; see also (Col 8, Lines 48-51), i.e.

Once the search inquiry is constructed 205, the high level analyzer 123 parses 207 the search inquiry to determine the image attribute included therein, and the order in which the corresponding side information files 115 are to be analyzed.

(Col 24, Lines 64-67), i.e.

After the high level analyzer 123 evaluates 209 the appropriate side information files 115 from the image database 113, and determines the ordering of those images

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<sup>1</sup> The "ground information" can read on the "side information" in accordance to the Application specification, please see the Summery of the Invention, Page 3, Lines 20-22. The "ground information" can also read on the "image attribute" and how it is visual to the user through the Interface and also and how it is ranked (classified).

Art Unit: 2161

that are substantially similar to the image attributes in the search inquiry.

a display part displaying each data together with corresponding ground information (Figures 5b-5h, 5i and 7-8)<sup>2</sup> in accordance with classification and the arrangement of the data (Col 25, Lines 1-3; see also Col 8, Lines 54-66).

wherein the data retrieving part receives the ground information displayed on a display part (Figures 5b-5h, 5i and 7-8); and

conducts subsequent search processing by use of the received information as a search key (Col 20, Lines 1-16).

Wang's reference discloses all of the claimed subject matter set forth above, except it does not explicitly indicate the data having similar feature values are disposed close to each other. However Ikeda, teaches data having similar feature values are disposed close to each other (Ikeda, Figure No. 6 and corresponding text; see also Col 6, Lines 33-66).

Given the intended broad application of the Wang's system, It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to modify the teachings of Wang with the teachings of Ikeda to include the feature of disposing similar images (data) next to each other on a display to increase the system

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<sup>2</sup> Please refer to the "image attribute" interpretation above (in the first footnote), and how it can read on the "ground information", please note that this interpretation was mentioned in the first non-final office action of November 26, 2003.

Art Unit: 2161

flexibility and to make it more user friendly by display similar images next to each other that would attract more users which leads to increase in the profits.

Regarding Claims 4, Wang discloses wherein the classifying and arranging part conducts self-organization mapping processing in classification and arrangement processing of data (Abstract), i.e.

“and analyzes the image data of the side information files to determine a similarity measure for each image with respect to the search inquiry”

see also (Col 24, Lines 55-62; see also Col 24, Line 64 through Col 25, Line 3), i.e.

“such as pointers or storage addresses of the images”  
(mapping);

see also (Col 6, Lines 22-35), i.e.

“A high level analyzer analyzes the search inquiry to determine the image attributes and their parameters contained therein, and then analyzes the image data of the images to determine how similar the image data of an image is to the image attributes, to retrieve the images that are substantially similar to the image attributes of the search inquiry”.

See also Ikeda (Figures 6-8 and corresponding text).

Regarding Claims 5-6, Wang discloses wherein the label information<sup>3</sup>, the information on the feature values is color information, and the distribution information on the feature values is color histogram information (Col 3, Lines 44-52; see also Col 4, Lines 19-39; see also Col 11, Lines 32-36), i.e.

A color histogram side information file includes a color histogram of each image, either still images or those that are part of video sequences. In the preferred embodiment, the color histogram is based on an HSV color space, and represents the frequency distribution of colors by their hue and saturation levels in the image, with brightness values discarded.

Regarding Claim 8, Wang discloses wherein the data is image data, and in the label information, information on the feature values is edge information in image data, and distribution information on the feature values is histogram information including a direction of an edge portion in the image data as an element (Col 10, Line 66 through Col 11, Line 17).

Regarding Claim 9, Wang discloses wherein the data is image data, and in the label information, the information on feature values is color information, and distribution information on the feature values is representative color information (Figure No. 5d; see also Col 3, Lines 53 through Col 4, Line 3).

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<sup>3</sup> Please note that the "label information" is being interpreted as "color information" or "color space" according to the Specification of the instant Application (please see Page 4, Lines 11-12).



***Allowable Subject Matter***

11. Claim 7 is allowed over the prior art of record.
12. The following is the Examiner's statement of reasons for the indication of allowable subject matter:

Regarding Claim 7, Applicant's particular system in the environment of image searching is the feature wherein the data is image data, and in the label information, the information on feature values is information on wavelet conversion feature values, and the distribution information on the feature values is distribution information on frequency components of the image data subjected to wavelet conversion in combination with the limitations of the Claim was not disclosed by, would not have been obvious over, nor would have been fairly suggested by the prior art of record or that encountered in searching of the prior art.

***Other Prior Art Made of Record***

13. a. Shimabara (U.S. Patent No. 6836728) discloses a navigation device and method for displaying facility mark using the same;
- b. Gotsman et al. (U.S. Patent No. 6501857) discloses a method and system for detecting and classifying objects in an image; and
- c. Jain et al. (U.S. Patent No. 6121969) discloses a visual navigation in perceptual databases.

**Conclusion**

14. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

**Points of Contact**

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haythim J. Alaubaidi whose telephone number is (571) 272-4014. The examiner can normally be reached on Monday - Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic, can be reached on (571) 272-4023.

Any response to this office action should be mailed to:

The Commissioner of Patents and Trademarks, Washington, D.C. 20231 or telefax at our fax number (703) 872-9306.

Hand-delivered responses should be brought to the Customer Service Window of the Randolph Building at 401 Dulany Street, Alexandria, VA 22314

*Haythim J. Alaubaidi*

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Patent Examiner  
Technology Center 2100  
Art Unit 2161  
June 9, 2005

  
**FRANTZ COBY**  
**PRIMARY EXAMINER**